



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

SEP 26 2018

North Stonington Public Schools
Attn: Peter Nero, Superintendent
311 Norwich-Westerly Road
North Stonington, Connecticut 06359

Re: PCB Cleanup and Disposal Approval under 40 CFR §§ 761.61(a) and (c)
and § 761.79(h)
North Stonington Elementary School
North Stonington, Connecticut

Dear Mr. Nero:

This is in response to the Notification¹ by the North Stonington Public Schools ("NSPS") for approval of a plan to address polychlorinated biphenyl (PCB) contamination at the North Stonington Elementary School, 311 Norwich-Westerly Road in North Stonington, Connecticut. Specifically, PCBs have been identified in paints, caulk, mastics, building substrates (e.g., concrete and brick), and ground surfaces located in/adjacent to the circa-1965 and 1968 sections (together and hereinafter "the Site") of the school at concentrations that exceed the allowable PCB levels under 40 CFR § 761.20(a) and § 761.61(a).

To-date, NSPS has implemented interim measures to reduce the risk of exposure to PCBs for building users that include the following:

- Cleaning *non-porous surfaces* (e.g., table surfaces and window sills);
- Closing rooms with PCB concentrations that exceeded the EPA's "Exposure Levels for Evaluating PCBs in Indoor School Air";

¹ The notification was prepared by Eagle Environmental on behalf of the NSPS to satisfy the requirements under 40 CFR §§ 761.61(a) and (c) and § 761.79(h). Information was submitted dated March 10, 2011 (Self-Implementing On-Site Cleanup and Disposal Plan For PCB-Containing Exterior Window Caulk); December 7, 2016 (Limited Source Sampling Report); December 30, 2016 (Haz-Mat Inspection Report); May 22, 2017 (PCB Remediation Action Plan School Modification Project); July 18, 2017 (PCB Wipe and Settled Dust Sampling Plan for Determination of PCB Surface Concentrations North Stonington Elementary School); August 18, 2017 (PCB Air, Wipe, and Dust Sampling and Analysis Report); September 27, 2017 (PCB Remediation Action Plan School Modification Project Revision 1 and Response to EPA Comments); September 29, 2017 (Additional PCB Air, Wipe and Bulk Sampling and Analysis Report); June 6, 2018 (PCB Remediation Action Plan School Modification Project Revision 2); August 2, 2018 (email quarterly (July 2018) sample results); and September 13, 2018 (email third quarterly air sampling results). These submittals together shall be referred to as the "Notification".

- Removing PCB-contaminated carpeting and door mats;
- Encapsulating painted surfaces and caulk; and,
- Collecting air, surface, and dust samples for PCBs.

The Notification proposes a PCB plan under 40 CFR §§ 761.61(a) and (c) and § 761.79(h) in which NSPS will remove or encapsulate PCB-containing building materials (i.e., caulk, paint, and mastics) and associated substrates (e.g., brick and concrete) and PCB-contaminated ground surfaces to achieve a PCB cleanup standard of less than or equal to (“≤”) 1 part per million (ppm). Structural *porous surfaces* will be encapsulated. A summary of the PCB remediation activities to be implemented at the Site is provided in Attachment 2.

Based on its review of the information provided in the Notification, EPA has determined that the Notification meets the requirements under 40 CFR § 761.62 and § 761.79(h) for the PCB-containing building materials (e.g., caulk and paint) and 40 CFR § 761.61(a) for building substrates and ground surfaces. EPA finds that the proposed encapsulation of structural *porous surfaces* should effectively prevent direct exposure of these PCB-contaminated surfaces to building users such that PCBs remaining at the Site will not pose an unreasonable risk of injury to health or the environment, provided the encapsulates, and secondary barriers, as applicable, are maintained. EPA may approve the encapsulation under § 761.61(c).

EPA has determined that the alternative sampling frequencies, as shown in Attachment 2, will be adequate to confirm that the PCB cleanup standard has been met, based on the results of the PCB sampling to-date and the proposed decontamination and removal procedures. EPA finds that the alternative sampling frequencies proposed by NSPS will not create an unreasonable risk of injury to health or the environment and EPA may approve the sampling under § 761.61(c).

NSPS may proceed with its plan in accordance with 40 CFR §§ 761.61(a) and (c) and 761.79(h); its Notification; and this Approval, subject to the conditions of Attachment 1. NSPS has indicated in its Notification that the school will remain in use until approximately March 2019 when the school will be vacated to allow for the remediation and subsequent renovation work. During this interim period, NSPS shall continue to conduct indoor air and surface sampling to ensure that there is no unreasonable risk of injury to building users from the PCBs at the Site. In the event EPA determines that the PCBs at the Site present an unreasonable risk of injury to building users, NSPS shall be required to implement any measures necessary to reduce such risk, including but not limited to, removal of the PCB-containing products and/or ground surfaces.

EPA encourages the compliance with greener cleanup practices for all cleanup projects, and recommends adherence to the ASTM Standard Guide to Greener Cleanups E2893-16 (Guide) for work conducted under this Approval and the Notification. Greener Cleanups is the practice of integrating options that minimize the environmental impacts of cleanup actions in order to incorporate practices that maximize environmental and human benefit. Please see Section 6 of the Guide for the Best Management Practices (BMP) Process dated May 2016. (See www.astm.org/Standards/E2893.htm for additional information). EPA encourages you to review the Guide and implement any practices that are feasible. If implemented, the PCB completion report (see Attachment 1, Condition 28) should include a section on BMP Documentation, as described in Section 6.6.5 of the Guide.

Nothing in this Approval is intended or is to be construed to prejudice any right or remedy concerning PCBs or other federally-regulated contaminants at the Site, otherwise available to the EPA under Section 6 of TSCA, 15 U.S.C. 2605, 40 CFR Part 761, or other provisions of federal law. This Approval does not waive or relieve NSPS from complying with applicable TSCA and other federal, state, and local regulations and permits.

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall consider this project complete only when it has received all submittals required under this Approval, including submittal of the long-term monitoring and maintenance plan and the recorded deed notice. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,



Bryan Olson, Director
Office of Site Remediation & Restoration

cc Gary Trombly, CTDEEP
John Terrill, Eagle Environmental
File

Attachment 1: PCB Approval Conditions (8 pages)
Attachment 2: PCB Remediation Summary Table (7 pages)

ATTACHMENT 1

**PCB CLEANUP AND DISPOSAL APPROVAL CONDITIONS
NORTH STONINGTON ELEMENTARY SCHOOL
311 NORWICH-WESTERLY ROAD
NORTH STONINGTON, CONNECTICUT**

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and *PCB remediation waste* located at the Site (i.e., circa 1965 and 1968 building sections) and identified in the Notification.
 - a. In the event the North Stonington Public Schools ("NSPS") identifies other PCB-contaminated wastes at the Site (i.e., PCBs not identified in the Notification) subject to cleanup and disposal under the PCB regulations, NSPS shall be required to notify EPA and to clean up the PCB-contaminated wastes in accordance with 40 CFR Part 761.
 - b. In this event, NSPS may submit a separate plan to address such other PCB-contaminated wastes or may propose to modify the Notification to incorporate cleanup of such PCB-contaminated wastes under this Approval in accordance with Condition 22.
2. NSPS shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.
3. In the event that the plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.
4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.
5. NSPS must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, NSPS shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.
6. NSPS is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time NSPS has or receives information indicating that NSPS or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.

7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by NSPS are authorized to conduct the activities set forth in the Notification. NSPS is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.
8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release NSPS from compliance with any applicable requirements of TSCA or any other federal, state or local law; or 3) release NSPS from liability for, or otherwise resolve any violations of TSCA or any other federal, state or local law.
9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in 40 CFR § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from NSPS of its acceptance of the conditions of this Approval within 10 business days of receipt.
11. NSPS shall notify EPA in writing of the scheduled date of commencement of on-site activities at least 1 business day prior to conducting any work under this Approval.
12. Prior to initiation of work authorized under this Approval, NSPS shall submit the following information for EPA review and/or approval:
 - a. a certification signed by its selected abatement/demolition contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval; and,
 - b. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

DECONTAMINATION AND DISPOSAL CONDITIONS

13. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.
14. PCB-contaminated building materials described in the Notification shall be decontaminated and verification sampling and analysis shall be conducted as described below (see Attachment 2):

- a. All visible residues of PCB paint, caulk, and mastics/adhesives, and associated building substrates shall be removed and disposed of in accordance with 40 CFR § 761.62 as described in the Notification.
- b. The decontamination standard for *porous surfaces* (e.g., concrete) shall be less than or equal to (" \leq ") 1 part per million ("ppm") for unrestricted use under 40 CFR § 761.61(a).
 - i) Sampling for *porous surfaces* shall be performed on a bulk basis (i.e., mg/kg) and reported on a dry weight analysis. Sampling for *porous surfaces* shall be conducted in accordance with the EPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*, at a maximum depth interval of 0.5 inches. Verification samples shall be collected at the frequency identified in the Notification.
 - ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846 and chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction and/or analytical method(s) is validated according to Subpart Q.
 - iii) As a contingency, if the ≤ 1 ppm PCB standard cannot be achieved in the concrete block and mortar within 6 inches of the building seams in the 1968 addition, and the interior concrete columns after paint removal in the 1965 Building, the concrete block and mortar and the interior concrete columns will be encapsulated.
- c. The cleanup standard for *PCB remediation waste* (i.e., soil, asphalt, and concrete sidewalk) shall be ≤ 1 ppm for unrestricted use or disposal.
 - i) All verification samples of *PCB remediation waste* shall be collected on a bulk basis (i.e., mg/kg) at the frequency identified in the Notification.
 - ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction and/or analytical method(s) is validated according to Subpart Q.
 - iii) In the event that the PCB concentration of any sample collected using the alternative sampling frequency is > 1 ppm, NSPS shall contact EPA for further discussion and direction on alternatives.
- d. *Porous surfaces* with PCB concentrations > 1 ppm that will remain in-place shall be encapsulated as described in the Notification.

15. Following encapsulation of PCB-contaminated *porous surfaces* (e.g., structural concrete columns and foundation, and adjacent brick and mortar, if implemented) with an epoxy coating, sampling shall be conducted to determine the effectiveness of the encapsulation.
 - a. Wipe sampling of encapsulated *porous surfaces* shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e., $\mu\text{g}/100\text{ cm}^2$). Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction or analytical method(s) is validated according to Subpart Q.
 - b. In the event that the PCB concentration of any wipe sample is $> 1\text{ }\mu\text{g}/100\text{ cm}^2$, and if this standard cannot be achieved with the application of additional encapsulant, NSPS shall contact EPA for further discussion and direction on alternatives.
16. Post-abatement indoor surface sampling and indoor air sampling shall be conducted to document the effectiveness of the containment and PCB abatement work.
 - a. Wipe sampling of indoor surfaces shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e., $\mu\text{g}/100\text{ cm}^2$). Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846 and chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction and/or analytical method(s) is validated according to Subpart Q. The laboratory reporting limit shall be $\leq 0.5\text{ }\mu\text{g}/100\text{ cm}^2$.
 - b. Indoor air sampling shall be conducted in accordance with EPA Method TO-10A or EPA Method TO-4A. Sufficient sample volumes shall be collected to provide a laboratory reporting limit of $\leq 0.050\text{ }\mu\text{g}/\text{m}^3$ for total PCBs. PCB analysis shall be conducted for PCB homologues and/or PCB congeners.
17. PCB waste (at any concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61 or § 761.62, unless otherwise specified below.
 - a. Non-liquid cleaning materials, PPE and similar materials resulting from decontamination may be disposed of in accordance with 40 CFR § 761.79(g)(6).
 - b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).
 - c. PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60.

DEED NOTICE AND USE CONDITIONS

18. Within sixty (60) days of completing the activities described in the Notification and in the Approval, NSPS shall submit for EPA review and approval, a draft deed notice for the Site where PCBs > 1 ppm remain. The deed restriction shall include: a description of the extent and levels of contamination at the Site following abatement; a description of the actions taken at the Site; a description of the use restrictions for the Site, if any; and, the long-term monitoring and maintenance requirements on the Site, which may be addressed by the monitoring and maintenance plan ("MMP", see Condition 20). Within seven (7) days of receipt of EPA's approval of the draft deed notice, NSPS shall record the deed notice and a copy of this Approval shall be attached to the deed notice.
19. Within 14 days of the recording of the deed notice, NSPS shall submit to EPA a certification that it has recorded the deed restriction with a copy of the executed deed notice.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

20. Within 60 days of completion of the work authorized under this Approval, NSPS shall submit for EPA's review and approval, a detailed monitoring and maintenance plan ("MMP") for the epoxy coating and/or other barriers and for indoor air. NSPS shall incorporate any changes to the MMP required by EPA.
 - a. The MMP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria; and, reporting requirements, as applicable.
 - b. The MMP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including teachers, parents, student, other on-site workers, and interested stakeholders.
 - c. The MMP also shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the coating(s) or other barriers encapsulating the PCB-contaminated *porous surfaces*.
 - d. NSPS shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMP is necessary in order to monitor and/or evaluate the long-term effectiveness of the coating or other physical barriers.
 - e. Activities required under the MMP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.

21. NSPS shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by NSPS to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.
22. Any proposed modification(s) in the plan, specifications, or information in the Notification must be submitted to EPA no less than 14 calendar days prior to the proposed implementation of the change. Such proposed modifications will be subject to the procedures of 40 CFR § 761.61(a)(3)(ii).
23. If such modification involves a change in the use of the Site which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from NCPS to make a determination regarding potential risk.
24. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
25. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
26. Approval for these activities may be revoked, modified or otherwise altered if: EPA finds a violation of the conditions of this Approval or of 40 CFR Part 761, including EPA's PCB Spill Cleanup Policy, or other applicable rules and regulations; EPA finds that the PCBs remaining at the Site present an unreasonable risk of injury to health or the environment; EPA finds that the institutional and engineered controls are not effective in preventing PCB exposure; or EPA finds that changes are necessary to comply with new rules, standards, or guidance for such approvals. NCPS may apply for appropriate modifications in the event new rules, standards, or guidance come into effect.

RECORDKEEPING AND REPORTING CONDITIONS

27. NSPS shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the cleanup and disposal and the analytical sampling shall be established and maintained by NCPS in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.

28. NSPS shall submit a PCB completion report ("Report") in both electronic format (CD-ROM) and hard copy, to the EPA within 60 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities with photographic documentation and Greener Cleanups BMP documentation, if implemented; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of; copies of manifests and bills of lading; copies of certificates of disposal or similar certifications issued by the disposer; and the estimated cost of the remediation work completed under the Approval. The Report shall also include a certification signed by a NSPS approving official verifying that the authorized activities have been implemented in accordance with this Approval and the Notification.
29. Required submittals shall be mailed via certified mail to:
- Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100 - (OSRR07-2)
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527
30. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

END OF ATTACHMENT 1